IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Applicant(s):	Diepstraten et al.
Case:	22-12-2-2
Serial No.:	09/919,051
Filing Date:	July 31, 2001
Group:	2616
Examiner:	Kevin C. Harper
Title:	Wireless LAN with Enhanced Carrier Sensing

CORRECTED APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellants hereby submit this Corrected Appeal Brief to correct a typographical error. The original Appeal Brief was submitted on December 19, 2007 to appeal the non-final rejection dated September 19, 2007, of claims 3-5 and 7-11 of the above-identified patent application.

REAL PARTY IN INTEREST

The present application is assigned to Agere Systems Inc., as evidenced by an assignment recorded on April 25, 2007 in the United States Patent and Trademark Office at Reel 019206, Frame 0035. The assignee, Agere Systems Inc., is the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

The present application was filed on July 31, 2001 with claims 1 through 6. Claims 1, 2, and 6 were cancelled and claims 7-11 were added in the Amendment and Response to Office Action dated October 31, 2005. Claims 3-5 and 7-11 are presently pending in the above-identified patent application. Claims 5, 7, and 10-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Trachewsky et al. (United States Patent Publication Number 2001/0055311) in view of Hasegawa et al. (United States Patent Publication Number 2001/0024454), claims 4 and 9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Trachewsky et al. in view of Hasegawa et al., and further in view of Williams et al. (United States Patent Number 5,815,488), and claims 3 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Trachewsky et al. in view of Hasegawa et al., and further in view of Schmitt et al. (United States Patent Application Publication Number 2007/0135865). Claims 7 and 11 are being appealed.

STATUS OF AMENDMENTS

There have been no amendments filed subsequent to the non-final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 7 is directed to a system for accessing a wireless network from a wireless station, comprising: a memory that stores computer-readable code (page 9, lines 13-28); and a processor operatively coupled to the memory, the processor (FIG. 4: 306) configured to implement the computer-readable code, the computer-readable code configured to (page 9, line 13, to page 10, line 18): detect a first signal portion in a received data signal (page 12, lines 1-20); detect a second signal portion in the received data signal (page 12, lines 1-20), wherein the second signal portion follows the first signal portion, and the second signal portion utilizes a second signal coding technique different from a first signal coding technique utilized by the first signal portion, wherein the step of detecting a second signal portion in the received data signal further comprises the step of determining an auto-correlation between a first part of the second

signal portion and a third part of the second signal portion (page 14, lines 3-30); and utilize the determination of an auto-correlation to perform network access control (page 14, lines 3-30, and page 15, lines 23-30).

Independent claim 11 is directed to a method for accessing a wireless network from a wireless station, comprising the steps of: detecting a first signal portion in a received data signal (page 12, lines 1-20); detecting a second signal portion in the received data signal, wherein the second signal portion follows the first signal portion (page 12, lines 1-20), and the second signal portion utilizes a second signal coding technique different from a first signal coding technique utilized by the first signal portion, wherein the step of detecting a second signal portion in the received data signal further comprises the step of determining an auto-correlation between a first part of the second signal portion and a third part of the second signal portion (page 14, lines 3-30); and utilizing the determination of an auto-correlation to perform network access control (page 14, lines 3-30, and page 15, lines 23-30).

STATEMENT OF GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 7 and 11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Trachewsky et al in view of Hasegawa et al.

ARGUMENT

Independent Claims 7 and 11

Independent claims 7 and 11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Trachewsky et al. in view of Hasegawa et al. In particular, the Examiner acknowledges that Trachewsky does not disclose detecting the second signal by determining an auto-correlation between a first part and a third part of the signal, but asserts that Hasegawa discloses detecting a data frame by auto-correlation of a first and third portion of the data frame (paragraph 88, lines 1-7). In the Response to Arguments section of the present Office Action, the Examiner asserts that, in Trachewsky, the communication is for network access of terminals where data frames are properly detected, that, in Hasegawa, the autocorrelation is to provide

proper reception (synchronization) of a communication, and, therefore, Trachewsky in view of Hasegawa provides an autocorrelation that is used for network access control (i.e , detecting data frames). The Examiner further asserts that Applicant's own network access control is the proper detection of data frames as similar to the invention disclosed by Trachewsky in view of Hasewaga.

Independent claims 7 and 11 require *utilizing said determination of an auto-correlation to perform network access control*. (Support for this limitation can be found on page 11, line 27, to page 15, line 30, of the originally filed specification.) For example, the present disclosure teaches that, "by means of these periodic peaks the payload detector 312 determines whether a payload transmission is in progress or not." (Page 15, lines 24-26.)

In the text cited by the Examiner, Hasegawa teaches that

> the signal detection processor may comprise a *frame boundary detector for detecting a frame boundary* of the signal data on the basis of correlation between signal data of a length of a cyclic prefix attached to the head of received data received after off-synchronization is detected and signal data of a length of the cyclic prefix attached to the tail of the same, and a frame boundary detection type correlation operation controller for making the correlation operator carry out the correlation operation on a frame specified by a frame boundary detected by the frame boundary detector.
> (Paragraph 0088; emphasis added.)

The ground of rejection is respectfully traversed because the Examiner has failed to establish a *prima facie* case of obviousness in that there exists no motivation to combine the references, and further, even if combinable, the references collectively do not teach each and every limitation of the independent claims. *Cf.* M.P.E.P. §2143. Appellants could find no disclosure or suggestion in either of the cited references to combine the network access control of Trachewsky with the frame boundary detector disclosed by Hasegawa. In particular, Appellants could find no disclosure or suggestion by either Trachewsky et al. or Hasegawa of *utilizing a determination of an auto-correlation to perform network access control*. Other than with the Examiner's hindsight created by the present invention, there is no motivation to combine the cited references.

Furthermore, Appellants could find no disclosure or suggestion that the *frame boundary detector* disclosed by Hasegawa can be utilized to *detect data frames,* nor that the *frame boundary detector* disclosed by Hasegawa can be utilized to *detect data frames to perform network access control*.

Regarding the Examiner's assertion that Applicant's own network access control is the proper detection of data frames as similar to the invention disclosed by Trachewsky in view of Hasewaga, Appellants note that the network access control of the present invention is *not* does not utilize the *type of frame detection* disclosed by Trachewsky, does *not* require the *frame boundary detection* disclosed by Hasegawa, and maintain that the combination of Trachewsky and Hasewaga would *not* result in network access control that utilizes a determination of an auto-correlation.

Thus, Applicants maintain that such a combination would not be obvious to a person of ordinary skill in the art

Thus, Trachewsky et al. and Hasegawa et al., alone or in combination, do not disclose or suggest utilizing said determination of an auto-correlation to perform network access control, as required by independent claims 7 and 11.

Additional Cited References

Williams was also cited by the Examiner for its disclosure of OFDM for use in an ADSL system. Applicants note that Williams is directed to a communications method which permits multiple users to simultaneously access an RF channel with a high degree of immunity to channel impairments. (See, Field of the Invention.) Williams does *not,* however, address the issue of utilizing a determination of an auto-correlation to perform network access control.

Thus, Williams et al. do not disclose or suggest utilizing said determination of an auto-correlation to perform network access control, as required by independent claims 7 and 11.

Schmitt was also cited by the Examiner for its disclosure of sampling a signal using at least two IIR biquad filters. Applicants note that Schmitt is directed to *implantable medical devices*. (See, Field of the Invention.) Schmitt does *not,* however, address the issue of utilizing a determination of an auto-correlation to perform network access control.

Thus, Schmitt et al. do not disclose or suggest utilizing said determination of an auto-correlation to perform network access control, as required by independent claims 7 and 11.

Conclusion

The rejections of the cited claims under section 103 in view of Trachewsky et al., Hasegawa et al., Williams et al., and Schmitt et al., alone or in any combination, are therefore believed to be improper and should be withdrawn. The remaining rejected dependent claims are believed allowable for at least the reasons identified above with respect to the independent claims.

The attention of the Examiner and the Appeal Board to this matter is appreciated.

Respectfully,

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Date: February 11, 2008

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APPENDIX

1. (Cancelled)

2 (Cancelled)

3. The method according to claim 11, wherein the step of detecting the second signal portion further comprises filtering the second signal portion with a complex-valued processing filter of two IIR filters with biquad structure, capable of sampling said second signal portion at a sampling frequency which is twice the frequency of said second signal portion.

4. The method according to claim 11, wherein said first signal portion comprises OFDM as said first signal coding technique of said first signal portion and said second signal portion comprises OFDM as said second signal coding technique of said second signal portion.

5. The method according to claim 11, wherein said first signal portion comprises BPSK, QPSK or other PSK as said first signal coding technique of said first signal portion and said second signal portion comprises CCK, QAM or PSK as said second signal coding technique of said second signal portion.

6. (Cancelled)

7. A system for accessing a wireless network from a wireless station, comprising:

a memory that stores computer-readable code; and

a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to:

detect a first signal portion in a received data signal;

detect a second signal portion in said received data signal, wherein said second signal portion follows said first signal portion, and said second signal portion utilizes a second signal coding technique different from a first signal coding technique utilized by said first signal portion, wherein said step of detecting a second signal portion in said received data signal further comprises the step of determining an auto-correlation between a first part of said second signal portion and a third part of said second signal portion; and

utilize said determination of an auto-correlation to perform network access control.

8. The system according to claim 7, wherein said processor is further configured to filter the second signal portion with a complex-valued processing filter of two IIR filters with biquad structure, capable of sampling said second signal portion at a sampling frequency which is twice the frequency of said second signal portion.

9. The system according to claim 7, wherein said first signal portion comprises OFDM as said first signal coding technique of said first signal portion and said second signal portion comprises OFDM as said second signal coding technique of said second signal portion.

10. The method according to claim 7, wherein said first signal portion comprises BPSK, QPSK or other PSK as said first signal coding technique of said first signal portion and said second signal portion comprises CCK, QAM or PSK as said second signal coding technique of said second signal portion.

11. A method for accessing a wireless network from a wireless station, comprising the steps of:

detecting a first signal portion in a received data signal;

detecting a second signal portion in said received data signal, wherein said second

signal portion follows said first signal portion, and said second signal portion utilizes a second signal coding technique different from a first signal coding technique utilized by said first signal portion, wherein said step of detecting a second signal portion in said received data signal further comprises the step of determining an auto-correlation between a first part of said second signal portion and a third part of said second signal portion; and

utilizing said determination of an auto-correlation to perform network access control.

EVIDENCE APPENDIX

There is no evidence submitted pursuant to § 1.130, 1.131, or 1.132 or entered by the Examiner and relied upon by appellant.

RELATED PROCEEDINGS APPENDIX

There are no known decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 CFR 41.37